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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,596	10/19/2001	Mohammad Thudor	1171/39672/106	3006

7590

09/06/2005

Trexler, Bushnell, Giangiorgi,  
Blackstone & Marr, Ltd.  
36th Floor  
105 West Adams Street  
Chicago, IL 60603

EXAMINER
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PAIK, SANG YEOP

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/001,596

Applicant(s)

THUDOR ET AL.

Examiner

Sang Y. Paik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 19-23, 25, 28, 29 and 36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 19-23, 25, 28, 29 and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 19-23, 25, 28 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniell et al (US 5,558,084) or Gradon et al (US 6,349,722) in view of Kawai et al (US 4,332,165).

Daniell shows the breathing assistance apparatus claimed having a humidifier, an ambient external temperature sensor (45), a conduit heater (10), and a controller (11, 61) to provide and monitor the electrical input power to the humidifier to produce the humidified gas and to the conduit heater (see Figure 5). Gradon also shows the breathing assistance apparatus claimed having a humidifier, a conduit with a conduit heater (15), and a controller (11) for controlling the electrical input power to the conduit heater to control the parameters such as temperature and humidity of the gas that relates to the gas flow rate in the conduit. However, neither Daniell nor Gradon shows the controller determining the parameter, in combination with the input power to the conduit heater, that is indicative of the flow rate of gas through the conduit.

Kawai shows a gas flow measuring device whose gas flow rate is determined by the quantity of the electrical power supplied to the electric heater.

In view of Kawai, it would have been obvious to one of ordinary skill in the art to adapt Daniell or Gradon with the claimed input power to determine the flow of the gas to better serve the user.

With respect to the claimed steps, while Daniell does not explicitly shows the sequence of the claimed steps, but it would have been obvious to provide the controller with such monitoring processes or steps to monitor the changes in the threshold parameter values, including the changes in the resistance or temperature or other related parameters, so that the power to the conduit heater can be adjusted to maintain the desired flow rate as well as the humidity or gas temperature to maintain the optimal humidified gas for the user.

3. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daniell or Gradon in view of Kawai as applied to claims 1-7, 19-23, 25, 28 and 36 above, and further in view of McComb (US 5,349,946) or Clementi (US 5,031,612).

Daniell or Gradon in view of Kawai shows the apparatus claimed except the gas supply means to supply gas to the humidifier.

McComb shows a gas supply with a flow meter/sensor to supply gas and the processor to determine the desired humidity level at the given flow rate. Clementi also shows a gas supply such as a blower to provide the pressured gas flow to provide the desired humidified gas. In view of McComb or Clementi, it would have been obvious to one of ordinary skill in the art to adapt Daniell or Gradon, as modified by Kawai, with the gas supply means to provide the air source that is humidified for the user and to control the rate at which the air/gas is provided.

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Y. Paik whose telephone number is 571-272-4783. The examiner can normally be reached on M-F (9:00-4:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Paik

Sang Y Paik  
Primary Examiner  
Art Unit 3742

syp